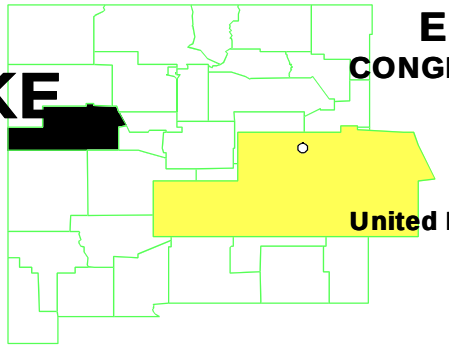
HOMESTAKE MINING COMPANY

NEW MEXICO

EPA ID# NMD007860935



EPA REGION 6
CONGRESSIONAL DISTRICT 02
Cibola County

Other Names:
United Nuclear Homestake Partners
UNC/Homestake
Update 03/31/00

Site Description

Location: ! 5.5 miles north of Village of Milan in northwest New Mexico.

Population: ! Approximately 200 people live within a mile of the tailings piles.

Setting: Nearest residence is 3,000 feet away.
- ! Nearest drinking water well is 3,000 feet away.
- ! Threatened population in four subdivisions located 1/2 to two miles from tailings piles.
- ! Active tailings pile - 200 acres, 95-100 feet high 21 million tons.
- ! Inoperative tailings pile - 45 acres, 25 feet high 1.225 million tons.
- ! Uranium mill facility is still operating.

Hydrology:
- ! Tailings located on alluvium, overlying Chinle and San Andreas aquifers.
- ! Alluvium used as domestic water supply; deeper San Andreas is also an aquifer.
- ! Extensive injection/withdrawal system has altered shallow ground water flows and largely flushed alluvial and upper Chinle contamination under the State of New Mexico's Ground Water Discharge Plan (DP-200).

Wastes and Volumes

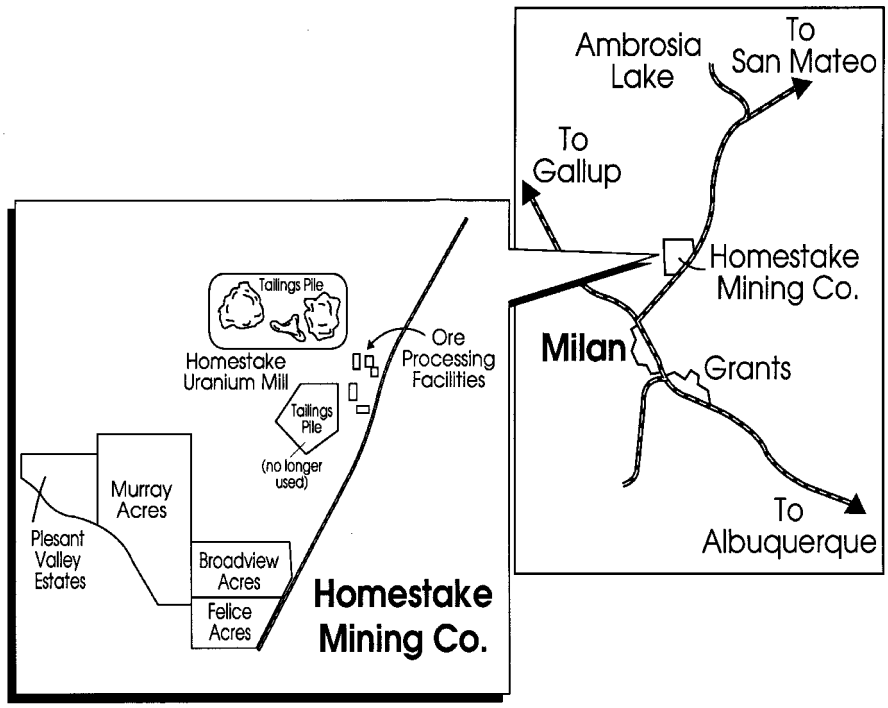
! Principal Pollutants:
- Alkaline mill tailings
- Radium-226; 60-100 picocuries/1iter in tailings (soil)
- Selenium: 1,200 parts per billion (ppb) (water)
- Uranium: 720 ppb (water)
- Radon: 0.03 Working Level (WL) (air)

! Volume:
- Tailings piles - 22,225 million tons.

Site Assessment and Ranking

NPL LISTING HISTORY
Site HRS Score: 35.21
Proposed Date: 12/30/82
Final Date: 9/08/83
NPL Update: Original

Site Map and Diagram



The Remediation Process

Site History:

! Mill opened in 1958.

! Ground water contamination observed as early as 1961.

! The New Mexico Environment Department (NMED) approved Homestake's Ground Water Discharge Plan (DP-200) in 1981 covering shallow aquifer restoration activities at the site.

! Homestake and EPA signed Consent Decree for Alternate Water Supply 11/83.

! New Mexico radon study released for homes near mill 08/83.

! Alternate Water Supply completed by Homestake 04/85.

! Homestake signed an Administrative Order on Consent 6/30/87 despite its position that any emissions of radon from Homestake's facility are "federally permitted releases" and that the company should not be liable for any study or response costs in connection with the Radon remedial investigation.

! EPA signed a Record of Decision (ROD) for the Radon Operable Unit on September 27, 1989. The ROD called for No Action.

Health Considerations:

! Several hundred people depended upon the shallow aquifer as a water supply; alternate water was provided in 1985, by Homestake under Consent Order with EPA.

Other Environmental Risks:

! Seepage from two large tailings ponds has contaminated the shallow aquifer and portions of the Upper Chinle aquifers. Possible emissions of radon from the tailings piles on Homestake's property may have increased the concentration levels of radon in adjacent subdivisions.

Record of Decision

Signed: Consent Agreement in November 1983 (Ground Water)
No Action ROD September 27, 1989 (Radon)

! Remedy: Provide water system to affected residents. Homestake provided municipal water to residents for 10 years under a Consent Agreement in 1983.
! No action necessary to address radon.

Other Remedies Considered	Reason Not Chosen

Community Involvement

! Community Involvement Plan: Developed 09/87.
! Open houses and workshops: 10/86, 10/87.
! Original Proposed Plan Fact Sheet and Public Meeting: 07/89.
! Original ROD Fact Sheet: 10/89.
! Milestone Fact Sheets: No Further Action.
! Citizens on site mailing list: 109
! Constituency Interest: Community concern for major employer is high. PRPs are keeping in touch with residents on a regular basis.
! Site Repository: New Mexico State University, Grants Library, 1500 Third Street, Grants, NM 87020

Technical Assistance Grant

- Availability Notice: 01/89
- Letters of Intent Received: None
- Grant Award: N/A

Contacts

- **Remedial Project Manager (EPA):** Petra Sanchez, 214/665-6686 (6SF-LT)
- **State Contact:** Birgit Landin, 505/827-9669
- **Community Involvement Coord (EPA):** Nancy Stonebarger, 214/665-6619
- **Attorney (EPA):** Paul Wendel, 214/665-2136
- **State Coordinator (EPA):** Joe Massey, 214/665-7408
- **Prime Contractor:** None

Present Status and Issues

- The initial actions have provided a safe drinking water supply while studies have determined that site contamination is not contributing to elevated indoor radon levels found in some area homes. Efforts to stabilize mill tailings are under way at the Homestake Mining Company site.

- EPA released Homestake Mining from the Agreement and Stipulation of June 1983 to provide municipal water system to the subdivisions near the site in July 1994. The stipulated actions were completed by November 1989.

- The Nuclear Regulatory Commission has amended the license conditions to have the large tailings impoundment radon cover installation completed by 1996, and the small impoundment cover completed by 2001, to conform to the closure dates noted in the Federal Register of October 25, 1991. These activities are still on schedule.

- In March 1995, NRC modified the license standards to exclude Chromium, Th-230 and Radium-226 and 228 due to these contaminants being less than compliance standards between 1989 and 1993.

- The ground water corrective action is a Long Term Remedial Action (LTRA) project, and the completion date is anticipated past the year 2000.

Benefits

- The contaminant plume has been driven back almost 3/4 mile into the site boundaries of HMC by injecting fresh water downgradient of the site. Over two trillion gallons of contaminated water have been removed.

- Reverse gradient injection has assured that contaminants in the ground water would not expand into the shallow aquifer, thus making the shallow water usable in the down gradient areas. Once the tailings pile have been closed, the site could be returned to beneficial use.

- Permanent alternate water supplies were provided to 200 people living in the subdivisions near the site.